

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for providing ~~the~~ communication of information services between customer premises equipment (CPE) at a customer's premises and a source of the information services, comprising:

providing a demarcation device at the customer's premises, wherein the demarcation device defines an interface between an external transport medium that is substantially external to the customer's premises and an internal transport medium that is substantially internal to the customer's premises;

establishing a virtual private network (VPN) between the demarcation device and the source of information services; **and**

establishing a virtual local area network (VLAN) between the demarcation device and the CPE;

wherein the communication of information services is provided by at least the VPN and the VLAN.

2. (Original) The method of claim 1, further comprising:
receiving a signal at the demarcation device from the source of the information services via the VPN;

consulting a routing table at the demarcation device to determine the VLAN of the CPE; and

routing the signal to the CPE via the VLAN.

3. (Original) The method of claim 1, wherein establishing a VLAN between the demarcation device and the CPE comprises:

establishing an interface between the CPE and the demarcation device;

transmitting information from the CPE to the demarcation device via the interface, wherein the information comprises an address of the CPE; and

writing at least a portion of the information to a routing table, wherein the routing table also comprises a VLAN tag that identifies the VLAN between the CPE and the demarcation device.

4. (Original) The method of claim 3, wherein the interface between the CPE and the demarcation device comprises a selection from the group consisting of fiber optic connection, coaxial connection, twisted pair copper wire connection, and wireless connection.

5. (Original) The method of claim 1, wherein establishing a VPN between the demarcation device and the source of information services comprises:

establishing an interface between the demarcation device and the source of information services; and

writing information to a routing table at the demarcation device, wherein the information identifies a service and a termination location of the VPN.

6. (Original) The method of claim 5, wherein the service comprises a selection from the group consisting of voice, data, and video.

7. (Original) The method of claim 5, wherein the service comprises a selection from the group consisting of video on demand, voice over internet protocol, broadband Internet access, television programming, online gaming, music on demand, instant messaging, and alarm systems signaling.

8. (Original) The method of claim 5, wherein the service comprises utility monitoring and control.

9. (Original) The method of claim 5, wherein the interface between the demarcation device and the source of information services comprises a selection from the group consisting of fiber optic connection, coaxial connection, twisted pair copper wire connection, wireless connection, and satellite-based connection.

10. (Original) A demarcation device configured to facilitate the communication of information services between customer premises equipment (CPE) at a customer's premises and a source of the information services, comprising:

means for establishing a virtual private network (VPN) with a source of information services, wherein signals are received at the demarcation device from the source of information services via an interface comprising an external transport medium substantially external to the customer's premises;

means for establishing a virtual local area network (VLAN) with the CPE, wherein signals are sent from the demarcation device to the CPE via an interface comprising an internal transport medium substantially interior to the customer's premises; and

a routing table that stores information used to map signals from the VPN of the source of information services to the VLAN of the CPE.

11. (Original) The device of claim 10, wherein the interface between the CPE and the demarcation device comprises a selection from the group consisting of fiber optic connection, coaxial connection, twisted pair copper wire connection, and wireless connection.

12. (Original) The device of claim 10, wherein the service comprises a selection from the group consisting of voice, data, and video.

13. (Original) The device of claim 10, wherein the service comprises a selection from the group consisting of video on demand, voice over internet protocol, broadband Internet access, television programming, online gaming, music on demand, instant messaging, and alarm systems signaling.

14. (Original) The device of claim 10, wherein the service comprises utility monitoring and control.

15. (Original) The device of claim 10, wherein the interface between the demarcation device and the source of information services comprises a selection from the group consisting of

fiber optic connection, coaxial connection, twisted pair copper wire connection, wireless connection, and satellite-based connection.

16. (Currently Amended) A method of registering customer premises equipment (CPE) at a customer's premises with a demarcation device to receive information services from a source of the information services ~~via a virtual private network (VPN)~~, comprising:

establishing a ~~VPN~~ virtual private network (VPN) between the demarcation device and the source of information services, wherein the VPN is comprised by an external transport medium substantially exterior to the customer's premises;

establishing an interface between the CPE and the demarcation device, wherein the interface is comprised by an internal transport medium substantially internal to the customer's premises;

establishing a virtual local area network (VLAN) between the CPE and the demarcation device by transmitting an address of the CPE to the demarcation device;

storing at least a portion of the address in a routing table of the demarcation device, wherein the routing table comprises a CPE receiving device;

wherein the information services are received via the VPN and the VLAN.

17. (Currently Amended) A demarcation device configured to facilitate ~~the~~ communication of information services between customer premises equipment (CPE) at a customer's premises and a source of the information services, comprising:

an interface between an internal transport medium substantially internal to the customer's premises and an external transport medium substantially external to the customer's premises; and

a microserver programmed to:

serve as a termination point for a virtual private network (VPN) between the demarcation device and the source of information services;

serve as a termination point for a virtual local area network (VLAN) between the demarcation device and the CPE; and

map signals received from the source of information services via the VPN to the CPE via the internal transport medium and the VLAN.

18. (Original) The demarcation device of claim 17, wherein the microserver is further programmed to establishing a virtual local area network (VLAN) with the CPE by receiving an address of the CPE and storing at least a portion of the address in a routing table, wherein the routing table comprises a VLAN tag that identifies a VLAN between the demarcation device and the CPE.

19. (Original) The demarcation device of claim 17, wherein the service comprises a selection from the group consisting of voice, data, and video.

20. (Original) The demarcation device of claim 17, wherein the service comprises utility monitoring and control.